

### **REMARKS**

Claims 1, 3-9, 51, 52, and 54-56 are pending.

Amendments are presented herein responsive to the stated 35 U.S.C. § 112, second paragraph rejection. Entry of these amendments is requested in that they overcome the stated rejection and place the application in better form for appeal.

#### **I. THE 35 U.S.C. § 112, 2<sup>ND</sup> PARAGRAPH REJECTION**

The Examiner rejected claims 51, 52, 54, 55 and 56 under 35 U.S.C. § 112, second paragraph, as being indefinite. Reconsideration and withdrawal of this rejection is requested.

Definiteness of claim language must be analyzed in light of the content of the application disclosure, the teachings of the prior art, and the claim interpretation that would be given by one of ordinary skill in the art at the time the invention was made. The essential inquiry is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity.

In numbered paragraph 4 of the Final Office Action, the Examiner states that “[c]laim 51 recites the limitation ‘said curved display device’ in line 9” and alleges that there is insufficient antecedent basis for this limitation in the claim. It is noted that line 9 of claim 51 recites “said curved display surface” not “said curved display device.” Claims 51-52 are hereby amended to address the Examiner’s rejection and clarify the antecedent basis.

The rejection of claims 55 and 56 is respectfully traversed. Claim 1, from which claims 55-56 depend, recites an “image display device” and a “curved display surface” (not a ‘curved display device,’ as noted by the Examiner). It is submitted that claims 55-56 suffer no antecedent basis problem as each of these claims clearly relates back to “said image display device.”

Withdrawal of the 35 U.S.C. § 112, second paragraph, rejection of claims 51, 52, 54, 55 and 56 is therefore requested.

## **II. THE 35 U.S.C. § 103 REJECTION**

Claims 1, 3-9, and 51-52 and 54-56 are being rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,934,672 to Sines et al. ("Sines") in view of U.S. Patent No. 5,873,645 to Belfer ("Belfer"). This rejection is respectfully traversed.

The remarks contained in the Amendment dated December 22, 2004, are incorporated herein by reference.

### **A. REJECTION IMPROPER BECAUSE BELFER IS NOT ANALOGOUS ART**

Applicant objects to the Examiner's treatment of Belfer as "analogous" art to teachings of Sines, and submits that such "analogy" is only evident in hindsight based on Applicant's disclosure. For a reference to be considered "analogous," the reference must "either be within the field of applicant's endeavor or, if not, then must be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992). A reference is "reasonably pertinent" if it "would have logically commended itself to an inventor's attention in considering his problem." *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993). Here, Sines relates to a "Slot Machine and Methods of Operation," whereas Belfer relates to a "Fiber Optic Cellular Reflector." Applicant respectfully submits that the Belfer reference, which bears absolutely no relation to wagering games, would not have "logically commended itself" to one of ordinary skill in the art of wagering game design considering ways in which to increase the popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines, whether or not such person had, or did not have, knowledge of Sines.

However, the test for determining whether a reference is "reasonably pertinent" is *not* whether the reference may have been considered analogous to the inventor. Instead, the test for

determining whether a reference is “reasonably pertinent” is whether the reference would have *logically* commended itself to some other potential inventor’s (*i.e.*, some other person) attention in considering the problem faced by the present inventors. The Examiner must, therefore, approach the obviousness issue from the view-point of one using ordinary skill in the art who is not an innovator but follows conventional wisdom. In other words, a person of ordinary skill in the art, seeking to solve a problem of increasing popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines, would not have reasonably been motivated to look to a reference relating to a “Fiber Optic Cellular Reflector.” *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1993), and it is *immaterial* that the inventor himself may have combined aspects of two disparate fields to arrive at the invention. It is further noted that the Examiner’s statement that “if one was trying to simulate a mechanical reel on a display” (Final Office Action, page 3, numbered paragraph 8) does not state the problem that was faced by the present inventors, but rather reflects a solution to the problem arrived at by the present inventors. Thus, the measure of what is “reasonably pertinent” must stem from the problem faced by the inventors, stated above, rather than that which might relate to a solution arrived at by the inventors. It is submitted, therefore, that a person of ordinary skill in the art, seeking to solve a problem of increasing popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines, would not have reasonably been motivated to look to a reference relating to a “Fiber Optic Cellular Reflector.”

Further, the classifications of the applied references is evidence of non-obviousness that must be considered by the Examiner. There is absolutely no overlap or commonality in the U.S. Classifications of these references or in the fields of search considered relevant by the Examiners prosecuting these applications. This is material evidence of nonanalogy. *See, e.g., In re Clay*,

966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992); *In re Ellis*, 476 F.2d 1370, 1372, 177 USPQ 526, 527 (CCPA 1973). Specifically, Sines is primarily classified under U.S. Class 273/143 R and is further classified under classes/subclasses 273/138A, 463/1, and 463/20 and was subjected to search in classes/subclasses 463/16, 20, 21; 463/30, 31, 32; 273/143 R, 138.1, 138.2, 138 A, and 138 R. Belfer is classified under U.S. Class 362/551 and secondarily under classes/subclasses 362/297 and 362/346. Belfer was subjected to search in classes/subclasses 362/32, 290, 297, and 346; 385/116, 119 and 120; 353/37; 348/739 and 804; and 345/32 and 905. This evidence must be considered within the context of an asserted *prima facie* case of obviousness under 35 U.S.C. § 103.

In view of the above, it is respectfully submitted that Belfer does not constitute “analogous art” as it would not have “logically commended itself” to one of ordinary skill in the art having knowledge of Sines and considering ways in which to increase the popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines.

Reconsideration and withdrawal of this rejection is requested for at least this reason.

#### **B. EQUIVALENCE NOT ESTABLISHED**

A critical step in analyzing the patentability of claims pursuant to 35 U.S.C. § 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by legitimate prior art references and the then-accepted conventional wisdom in the field. *See, e.g., In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). 35 U.S.C. § 103 requires that the “subject matter as a whole would have been obvious *at the time the invention was made*” to avoid impermissible hindsight.

Sines discloses a slot machine and methods of operation. FIG. 8 is a schematic diagram of components used in one embodiment of the invention and displays optical fibers 52 arranged with image input ends 53 adjacent an outer surface of a symbol-bearing mechanical reel 51 (Col. 8, lines 23-46). The display ends 54 of the optical fibers 52 display the image of the mechanical reel 51. As shown in FIG. 8, the display ends 54 form a flat surface on which the image is displayed to a player's eye 56.

In the Office Action dated August 8, 2005, the Examiner stated that “[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to use a video display device to transmit the symbols in order to reduce the image source.” (page 3 of Office Action). In the Examiner’s “Response to Arguments” in the Final Office Action, the Examiner added “[e]ven if Sines only produced an image of actual mechanical reels, it would have been obvious at the time of applicant’s invention to one having ordinary skill in the art to produce a simulated image because providing either of the images performs the same equivalent function.”

In order to rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based on applicant’s disclosure or the mere fact that the components at issue are functional or mechanical equivalents. *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). In *In re Scott*, for example, claims drawn to a hollow fiberglass shaft for archery differed from the prior art in the use of a paper tube as the core of the shaft as compared with the light wood or hardened foamed resin core of the prior art. The Board’s finding that the claimed invention was obvious since the prior art foam core was the functional and mechanical equivalent of the claimed paper core was reversed by the CCPA, which held that even components which might be functionally or mechanically equivalent are not necessarily obvious in view of one another. 323 F.2d 1016, 139 USPQ 297 (CCPA 1963).

Accordingly, in order to rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based on applicant's disclosure or the mere fact that the components at issue are functional or mechanical equivalents. *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). The Examiner has not shown evidence of the asserted "equivalency," nor did the Examiner show the alleged differences between the two deemed to be insubstantial if the element in the accused device "performs substantially the same function in substantially the same way to obtain the same result" as the claim limitation. *See Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950). Broad conclusory statements, standing alone, are not "evidence." *McElmurry v. Arkansas Power & Light Co.*, 995 F.2d 1576, 1578 (Fed. Cir. 1993).

Reconsideration and withdrawal of this rejection is requested for at least this reason.

**C. THE COMBINATION OF SINES AND BELFER DOES NOT TEACH OR  
SUGGEST THE CURVED DISPLAY SURFACE RECITED IN CLAIMS 1, 3-9  
AND 52**

The Examiner alleges that Sines teaching nothing about providing a radius of curvature of the display surface "in the range of from about 4 to about 7 inches." The Examiner then cites *Applicant's specification*, page 6, lines 27-29, which recites that the radius of a typical mechanical reel is generally in the range from about 4 to 7 inches, and alleges that, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide such feature "in order to provide an exact appearance of a mechanical reel."

In response to the December 22, 2004, Amendment, and arguments made in relation to the curved surfaces recited in claims 1, 3-9 and 52, the Examiner asserts that "Sines explicitly discloses/teaches realistically simulating mechanical reels on a display." The Examiner then

concludes that “[d]oing so would require a mechanical or simulated reel that had a radius of curvature.” From this conclusion, the Examiner further concludes that “it would have been obvious to utilize Belfer’s curved display surface structure to approximate the radius of curvature of an actual mechanical reel to make the display look more realistic to a player.”

Applicant disagrees with the Examiner’s position and reasoning. Sines does not teach a curved display surface. FIG. 8 shows a flat display. Sines does not suggest a curved display surface, despite generic language that “[a]lternative . . . display configurations are possible.” Sines does not explicitly disclose/teach “realistically simulating mechanical reels” on a display. First, it is noted that a word search of Sines on the USPTO website for variations of “real,” “realistic,” and “realistically” returned no hits. Second, Sines explicitly teaches embodiments wherein positions on a reel not normally viewable to the player are made viewable to the player such as by mirrors 26 or “by reflecting light from the reel peripheries to bundles of optical fibers leading *to the planes of the individual viewing windows* identified at 28” (col. 7, lines 40-64; FIG. 5)(emphasis added). Sines seeks to elevate player excitement by artificially permitting a greater field of view of the mechanical reel than might typically be afforded so that the players may anticipate what might be coming up toward the paylines. This, by itself, contradicts the assertion that Sines is attempting to “realistically” simulate mechanical reels on a display.

From a different vantage, the Examiner is taking the flat display taught by Sines and is, in hindsight, implicitly declaring it a result-effective variable to be optimized and simultaneously asserting that it would have been obvious to curve the display to a particular degree so as to “realistically simulate” the mechanical reel 51. However, a particular parameter must first be recognized as a result-effective variable before the determination of the optimum or workable ranges of the variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d

618 (CCPA 1977). The Examiner's arguments parallel the arguments raised by the Examiner and the Board in *In re Antonie*, 559 F.2d 618 (CCPA 1977) and rejected by the Court of Customs and Patent Appeals. In that case, Appellant's claimed device had a ratio of tank volume to contactor area that was optimized for all set-ups of the device to maximize "treatment capacity." *Id.* at 619. The Examiner rejected the claims as obvious under 35 U.S.C. § 103(a), noting that the basic device was the same as the applied reference El-Naggar, which did not disclose the claimed volume relationship, but disclosed that the "efficiency" could be increased by increasing the *area* of the contactor. *Id.* "The Examiner then *assumed* that El-Naggar teaches keeping the tank volume constant while increasing the contactor area." *Id.* (emphasis in original). There, as here, the Examiner *assumes without evidentiary support* that the generic statement that "[a]lternative . . . display configurations are possible" suggests that the visual presentation of the display can be improved by increasing the radius of curvature. However, neither a gaming machine display with a radius of curvature, nor a specific range of values of such radius of curvature are recognized by Sines to be a result-effective variable.

The ends of the optical fibers of Sines form a flat display surface, and this flat surface is the only type of surface shown to the player as described in Sines. The ends of the optical fibers are directly coupled to what appears to be a flat screen (*e.g.*, screen 55 noted on col. 8, line 41). Even if Belfer were assumed, *arguendo*, to display a curved display surface, neither Sines nor Belfer remotely suggest providing a display with a radius of curvature that approximates the radius of curvature of a mechanical reel, as recited in claims 1, 3-9 and 52. The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308 (Fed. Cir. 1999). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation



in the reference to do so.” See *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992). Instead, the Examiner must show reasons why a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). This showing must be clear and particular. See, e.g., *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements, standing alone, are not “evidence.” *McElmurry v. Arkansas Power & Light Co.*, 995 F.2d 1576, 1578 (Fed. Cir. 1993). The only “evidence” offered by the Examiner are the conclusions that “[i]t would have been obvious . . . to provide such feature in order to provide an exact appearance of a mechanical reel” (Office Action, Page 4) and “to make the display look more realistic” (Final Office Action, Page 4). Again, Sines does not appear to be overly concerned with “realism.” Regarding FIG. 8, Sines notes that, like some of the other illustrations, “[t]he player sees an image . . . *which show the symbols present on the periphery of the reel*” (col. 8, lines 41-44)(emphasis added). If Sines were, in fact, obsessed with “realism,” then Sines would not want players to see the periphery of the wheel, an “artificial” condition.

Accordingly, for at least the reasons noted above, Applicant submits that the *prima facie* rejection of claims 1, 3-9, and 52 under 35 U.S.C. § 103(a) is improper and that the combination of Sines and Belfer has not been shown to teach and suggest each and every element of claims 1, 3-9, and 52. Reconsideration and withdrawal of this rejection is requested.

**D. THE COMBINATION OF SINES AND BELFER DOES NOT TEACH OR  
SUGGEST THE RECITED IMAGE DISPLAY DEVICE AND OPTICAL FIBERS  
CONFIGURATION RECITED IN CLAIMS 1, 3-7, 51-52 AND 54-56**

Claim 1 recites a slot machine comprising, *inter alia*, an image display device having a surface for producing *images of simulated mechanical reels* and a plurality of optical fibers having first ends “optically coupled” to the surface of the image display device. Claim 51 likewise recites a gaming machine comprising an image display device having a surface *for producing images* and a plurality of optical fibers have first ends optically coupled to the surface of the image display device.

By way of example, the specification discloses one embodiment of the invention in which a mechanical reel simulation system 10 includes an image display device 12 that provides an image output into a fiber optic bundle 14 comprising a plurality of optical fibers (FIG. 2). FIG. 2 illustrates a first end 16 of the fiber optic bundle 14 that is located adjacent to the image display device 12 and is “optically coupled” thereto (*see, e.g.*, page 6, lines 20-21). This “optical coupling” can be brought about by, for example, ensuring close proximity between the first end 16 of the fiber optic bundle 14 and the image display device 12 through the use of an optically transparent adhesive (*see, e.g.*, page 6, lines 21-24).

Fig. 8 of Sines depicts a mechanical reel 51 and optical fibers 52 arranged adjacent thereto to transmit an image of the reel. The optical fibers 52 are arranged with image input ends 53 adjacent and spaced apart from an outer surface of the symbol-bearing mechanical reel 51 (Col. 8, lines 23-46; Fig. 8). Sines does not disclose or suggest “optically coupling” the image input ends 53 of the optical fibers 52 to the movable outer surface of a symbol-bearing mechanical reel 51. The Examiner’s assertion that “Sines explicitly discloses this feature in

Column 8, lines 24-52, specifically, lines 47-52” is unsupported. Although Sines discloses that the optical fibers can be of various types (col. 8, line 47) and that some or all of the optical fibers can be tapered to allow the desired degree of magnification or demagnification (col. 8, lines 48-50), both points being noted by the Examiner, Sines has not been shown to teach optically coupling the optical fibers (*i.e.*, which may vary in type and shape) to a video output of a *simulated mechanical reel*. The “explicit” disclosure of the image display device having a surface for producing *images of simulated mechanical reels* advanced by the Examiner (col. 8, lines 47-52) relates only to the configuration of the optical fibers 52 and bears no relation to the use of the claimed image display device for producing images of *simulated mechanical reels*. The Examiner’s reliance on equivalence is therefore legally and factually erroneous.

Still further, Sines appears to *teach away from* the position adopted by the Examiner in the Final Office Action that “it would have been obvious at the time of applicant’s invention to one having ordinary skill in the art to produce a simulated image because providing either of the images performs the same equivalent function.” Sines expressly teaches that “[v]ideo slot machines have been introduced and were initially well received, but have not replaced the mechanical displays . . . . Despite many such noticeable improvements or changes, many people still prefer the more traditional mechanical slot machines. *The action and sounds of mechanical reel slot machines have a particular and very widespread appeal to a large number of gamblers seeking this form of entertainment*” (col. 1, lines 23-33)(emphasis added). Thus, Sines teaches that both the action and the sound of the mechanical reel slot machines are functions which markedly affect determine the appeal of the gaming machine to a “large number of gamblers.” Sines thus appears to teach away from replacement of the mechanical reel with an imaging device as, for example, it would eliminate useful functions (*i.e.*, the sound and action) of the

mechanical reels upon which Sines relies. Such evidence of teaching away constitutes evidence of non-obviousness. *In re Bell*, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993); *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).

Still further, if a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the reference are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810 (CCPA 1959). Here, implementation of the claimed image display device for producing images of simulated mechanical reels would eliminate the beneficial aspects of the mechanical reels 51 disclosed by Sines (col. 1, lines 22-33), change the principle of operation of Sines, and would appear to compromise the “very widespread appeal” engendered by the “action and sounds” of the mechanical reels. In this regard, such modification proffered by the Examiner would further render the combination non-obvious as the proposed modification would render Sines unfit for its intended purpose (*i.e.*, based on Sines disclosure in col. 1, lines 22-33). “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)(emphasis added).

Belfer, which is not considered by Applicant to constitute analogous art, also fails to disclose or suggest the claimed image display device for producing images of *simulated mechanical reels* and is unable to make up for the deficiencies of Sines in this regard. Moreover, the 35 U.S.C. § 103 rejection is devoid of any allegations of combination of Belfer with Sines in this regard, let alone providing evidentiary support therefore.

Accordingly, it is submitted that the Examiner has not set forth a *prima facie* case of obviousness of claims 1, 3-7, 51-52 and 54-56 under 35 U.S.C. § 103 in view of the combination

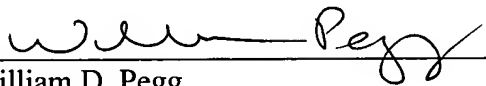
of Sines and Belfer. Reconsideration and withdrawal of this rejection is therefore requested for at least the above reasons.

Allowance of the pending claims is respectfully requested.

If there are any matters which may be resolved or clarified through a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the number indicated. Should any additional fees be required (except for payment of the issue fee), the Commissioner is authorized to deduct the fees from Jenkins & Gilchrist, P.C. Deposit Account No. 10-0447, Order No. 47079-00115USPT.

Respectfully submitted,

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